Victron & MeterBoost

1. Product & System compatibility

1.1 A GX device is required, eg Cerbo GX, etc

It is essential to use the BMS-Can (500 kbit/s) or VE.Can (250 kbit/s) connection of a GX device with these batteries for communication of charge and discharge limits, error codes and state of charge.

It is possible to use either the BMS-Can or VE.Can ports with this battery. Depending which one you use will require additional configuration on the MeterBoost side, please see the documentation linked below for instructions.

The minimum supported firmware version is v3.31. It is recommended to use the latest firmware version on new installations and when trouble shooting issues.

It is permitted to use either Type A or Type B VE.Can to BMS-Can cables.

1.2 All 48V Multis, MultiPlus, Quattros and RS models are compatible

The minimum supported firmware version for VE.Bus models is 469. Minimum supported firmware for RS models is 1.16. Updating to the latest firmware is recommended for new installations, and troubleshooting issues.

These inverter/charger units must be connected to the GX device via the VE.Bus connection port.

In grid connected systems, advanced control functions are configurable in the ESS settings on the GX device.

In off-grid systems, the control functions of the Battery Management System (BMS) are built into the latest version of the GX device.

1.3 Solar Charger compatibility

All 48V BlueSolar and SmartSolar MPPT Chargers are compatible.

Some of our Solar Chargers feature a VE.Direct communication port, some feature a VE.Can communication port, and some feature both. Both of these types of communication ports can be used to connect the Solar charger to the GX Device. Such connection is mandatory, because it is used to regulate charge currents and voltages.

2. Minimum battery sizing

For reliable operation there are minimum numbers of batteries required for different Victron inverters.

2.1 On-grid parallel

On-grid parallel refers to a wiring configuration where there are no loads connected to the AC-out of the inverter, The inverter combined with an energy meter will export via the AC-input to supply loads. This configuration allows for a very controlled discharge within specifications.

On-grid parallel anything below 5 kVA total inverter power can work with just one MB48LI82.GW battery or one MB48LI50.GW

On-grid parallel above 5 kVA total inverter power:

- 8 kVA: 2 MB48LI82.GW battery or 2 MB48LI50.GW
- 10 kVA: 3 MB48LI82.GW battery or 3 MB48LI50.GW
- 15 kVA: 4 MB48LI82.GW battery or 4 MB48LI50.GW
- For 3-phase and parallel multiply the number of batteries needed for single phase setup.

2.2 Off-grid of on-grid series

This configuration refers to when loads are connected to the AC-output of the inverter.

- Below 5 kVA: 3 MB48LI82.GW or 5 MB48LI50.GW

- 5 kVA: 4 MB48LI82.GW or 8 MB48LI50.GW
- 8 kVA: 7 MB48LI82.GW or 12 MB48LI50.GW
- 10 kVA: 8 MB48LI82.GW or 15 MB48LI50.GW
- 15 kVA: 13 MB48LI82.GW or 22 MB48LI50.GW
- For 3-phase and parallel systems multiply the number of batteries needed for single phase setup by the number of inverters in the installation.

Systems with fewer batteries are possible but the full inverter capacity will not be achievable, and may lead to overloads, high current and low battery alarms.

3. Further system integration documentation

Further details about installation and configuration is available from MeterBoost here:

mtb_quick_start_guide_r2024-1.pdf

mtb_batteries_user_manual_r2023-1.pdf

mtb_gateway_user_manual_r2023-1.pdf

4. Support

Support for this battery should first come from your MeterBoost supplier, if they are unable to assist, you can contact MeterBoost at support@meterboost.com

Support from Victron is limited our online Victron Community page.